

OIPE

RAW SEQUENCE LISTING DATE: 05/08/2001 PATENT APPLICATION: US/09/835,976 TIME: 15:55:17 **Does Not Comply** Corrected Diskette Needed Input Set : A:\PTO.txt Output Set: N:\CRF3\05082001\1835976.raw 3 <110> APPLICANT: Mount, David B. Delpire, Eric Gamba, Gerardo Alfred L. George, Jr. 8 <120> TITLE OF INVENTION: PURIFIED AND ISOLATED POTASSIUM-CHLORIDE COTRANSPORTER NUCLEIC ACIDS AND POLYPEPTIDES AND 10 THERAPEUTIC AND SCREENING METHODS USING SAME 12 <130> FILE REFERENCE: Attorney Docket No. 1242-26-2 14 <140> CURRENT APPLICATION NUMBER: US/09/835,976 15 <141> CURRENT FILING DATE: 2001-04-16 17 <160> NUMBER OF SEQ ID NOS: 131 19 <170> SOFTWARE: PatentIn Ver. 2.1 ERRORED SEQUENCES 4644 <210> SEQ ID NO: 16 4645 <211> LENGTH: 1150 4646 <212> TYPE: PRT 4647 <213> ORGANISM: Homo sapiens 4649 <220> FEATURE: 4650 <221> NAME/KEY: misc\_feature 4651 <222> LOCATION: (35) 4652 <223> OTHER INFORMATION: Xaa=Leu or Ile 4654 <220> FEATURE: 4655 <221> NAME/KEY: misc\_feature 4656 <222> LOCATION: (346) 4657 <223> OTHER INFORMATION: Xaa=Leu or Ile 4659 <220> FEATURE: 4660 <221> NAME/KEY: misc\_feature 4661 <222> LOCATION: (789) 4662 <223> OTHER INFORMATION: Xaa=Leu or Ile 4664 <400> SEQUENCE: 16 4665 Met His Pro Pro Glu Thr Thr Thr Lys Met Ala Ser Val Arg Phe Met 4668 Val Thr Pro Thr Lys Ile Asp Asp Ile Pro Gly Leu Ser Asp Thr Ser 4669 20 25  $m{lack}$  4671 Pro Asp Xaa Ser Ser Arg Ser Ser Ser Arg Val Arg Phe Ser Ser Arg 4672 35

4674 Glu Ser Val Pro Glu Thr Ser Arg Ser Glu Pro Met Ser Glu Met Ser

4677 Gly Ala Thr Thr Ser Leu Ala Thr Val Ala Leu Asp Pro Pro Ser Asp

4680 Arg Thr Ser His Pro Gln Asp Val Ile Glu Asp Leu Ser Gln Asn Ser

4683 Ile Thr Gly Glu His Ser Gln Leu Leu Asp Asp Gly His Lys Lys Ala

105

90

70

85





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Input Set : A:\PTO.txt
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4686 4687	Arg	Asn	Ala 115	Tyr	Leu	Asn	Asn	Ser 120	Asn	Tyr	Glu	Glu	Gly 125	Asp	Glu	Tyr
4689 4690	Phe	Asp 130	Lys	Asn	Leu	Ala	Leu 135	Phe	Glų	Glu	Glu	Met 140	Asp	Thr	Arg	Pro
4692 4693			Ser	Ser	Leu	Leu 150		Arg	Met	Ala	Asn 155		Thr	Asn	Leu	Thr 160
4695 4696		Gly	Ala	Lys	Glu 165		Glu	Glu	Ala	Glu 170		Ile	Thr	Glu	Gly 175	
4698	Lys	Lys	Pro			Thr	Pro	Gln			Thr	Phe	Met			Tyr
4699 4701	T.e.ii	Pro	Cve	180	Gln	Δen	Tle	Phe	185	Va 1	Tle	T.e.u	Phe	190	Δrσ	Leu
4702	200	110	195	Dea	0111		110	200	O. J	,		200	205	200	9	
4704	Thr		Val	Val	Gly	Thr		Gly	Val	Leu	Gln		Phe	Ala	Ile	Val
4705	<b>-</b> -	210	<u>~</u> .		•	<b></b>	215	<b></b>		m1		220	<b>a</b>	14 - L	<b>a</b>	21-
4707 4708		11e	Cys	Cys	Cys	230	Thr	Met	ьeu	Thr	235	iie	ser	met	Ser	A1a 240
4710		Ala	Thr	Asn	Gly		Val	Pro	Ala	Gly		Ser	Tyr	Phe	Met	
4711					245					250	-		-		255	
4713	Ser	Arg	Ala		Gly	Pro	Glu	Phe	_	Gly	Ala	Val.	Gly		Cys	Phe
4714 4716	m	T 011	C1	260	mhm	Dho	7 1 A	717	265	Mot	m.	т10	T 011	270	λl-	т10
4717	TYL	ьец	275	1111	1111	riie	на	280	на	mec	ıyı	116	285	GIY	AIG	116
4719	Glu	Ile		Leu	Val	Tyr	Ile		Pro	Arg	Ala	Ala		Phe	His	Ser
4720		290					295					300				
4722		Asp	Ala	Leu	Lys		Ser	Ala	Ala	Met		Asn	Asn	Met	Arg	
4723 4725		Clv	Thr	λla	Dho	310	Val	Len	Mot	V=1	315	Va 1	Val	Dho	Tlo	320
4726	ıyı	GIY	1111	AIG	325	пеа	Val	neu	,Me t	339	neu	Vai	Vai	riic	335	Gry
4728	Val	Arg	Tyr	Va1	Asn	Lys	Phe	Ala	Ser		Phe	Leu	Ala	Cys	Val	Ile
4729				340			_		345			_	_	350		
4731 4732	Val	Ser	11e	Leu	Ala	He	Tyr	360	GIY	Ala	He	Lys	Ser	Ser	Phe	Ala
4734	Pro	Pro		Phe	Pro	Val	Cvs		Leu	Glv	Asn	Arg		Leu	Ser	Ser
4735		370			<del>-</del>		375			2		380				
4737		His	Ile	Asp	Val		Ser	Lys	Thr	Lys		Ile	Asn	Asn	Met	
4738		D	C	T	T	390	C1	Dha	nha	C	395	Com	Com	C1 =	Dha	400 Dho
4740 4741	Val	Pro	ser	гуѕ	405	тгр	GIA	Pne	Pne	410	ASII	Ser	Ser	GIII	415	Pne
4743	Asn	Ala	Thr	Cys		Glu	Tyr	Phe	Val		Asn	Asn	Val	Thr		Ile
4744				420					425					430		
4746	Gln	Gly		Pro	Gly	Leu	Ala		Gly	Ile	Ile	Thr		Asn	Leu	Trp
4747 4749	Sor	λαη	435	Lou	Bro	Tvc	C1 v	440	T10	Tla	C1 ii	Tvc	445 Bro	Sor	λl =	Tue
4750	561	450	ıyı	пец	110	БУЗ	455	GIU	116	116	GIU	460	110		AIU	כעם
4752	Ser		Asp	Val	Leu	Gly		Leu	Asn	His	Glu		Val	Leu	Val	Asp
4753						470					475				_	480
4755	Ile	Thr	Thr	Ser		Thr	Leu	Leu	Val		Ile	Phe	Phe	Pro		Val
4756 4758	Thr	Gl v	Tlo	Met	485 Ala	Glv	Ser	Aen	Ara	490 Ser	Glv	Aen	Len	Lve	495 Asp	Δla
2,50	T 11T	O T Y	1 T C	17C L	ara	0 ± 3	JUL	-11011	9	JUL	- Y	u25	سات	_ <sub>1</sub> 3	7.25	u





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Input Set : A:\PTO.txt
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4759				500					505					510		
4761	Gln	Lys		Ile	Pro	Ile	Gly		Ile	Leu	Ala	Ile	Leu	Thr	Thr	Ser
4762			515					520					525			
4764	Phe	Val	Tyr	Leu	Ser	Asn	Val	Val	Leu	Phe	Gly	Ala	Cys	Ile	Glu	Gly
4765		530					535					540				
4767	Val	Val	Leu	Arg	Asp	Lys	Phe	Gly	Asp	Ala	Val	Lys	Gly	Asn	Leu	Val
4768	545					550					555					560
4770	Val	Gly	Thr	Leu	Ser	Trp	Pro	Ser	Pro	Trp	Val	Ile	Val	Ile	Gly	Ser
4771					565					570					575	
4773	Phe	Phe	Ser	Thr	Cys	Gly	Ala	Gly	Leu	Gln	Ser	Leu	Thr	Gly	Ala	Pro
4774				580					585					590		
4776	Arg	Leu	Leu	Gln	Ala	Ile	Ala	Lys	Asp	Asn	Ile	Ile	Pro	Phe	Leu	Arq
4777	_		595					600	_				605			-
4779	Val	Phe	Gly	His	Ser	Lys	Ala	Asn	Gly	Glu	Pro	Thr	Trp	Ala	Leu	Leu
4780		610	-			-	615		-			620	•			
4782	Leu	Thr	Ala	Ala	Ile	Ala	Glu	Leu	Glv	Ile	Leu	Ile	Ala	Ser	Leu	Asp
4783						630	•		•		635					640
4785	Leu	Val	Ala	Pro	Ile	Leu	Ser	Met	Phe	Phe	Leu	Met	Cvs	Tvr	Leu	Phe
4786					645					650				•	655	
4788	Val	Asn	Leu	Ala	Cvs	Ala	Leu	Gln	Thr	Leu	Leu	Ara	Thr	Pro	Asn	Trp
4789				660	- 4				665					670		
4791	Arg	Pro	Ara	Phe	Ara	Tvr	Tvr	His	Tro	Ala	Leu	Ser	Phe	Met	Glv	Met
4792	,		675		,	•	•	680	•	•			685		- 4	
4794	Ser	Ile		Leu	Ala	Leu	Met		Ile	Ser	Ser	Tro		Tvr	Ala	Ile
4795		690	•				695					700	•	•		
4797	Val	Ala	Met	Val	Ile	Ala	Gly	Met	Ile	Tyr	Lys	Tyr	Ile	Glu	Tyr	Gln
4798						710	•			•	715	•			•	720
4800	Gly	Ala	Glu	Lvs	Glu	Trp	Glv	Asp	Glv	Ile	Arq	Gly	Leu	Ser	Leu	Ser
4801	-			-	725	-	-	-	-	730	•	•			735	
4803	Ala	Ala	Arq	Phe	Ala	Leu	Leu	Arq	Leu	Glu	Glu	Gly	Pro	Pro	His	Thr
4804			_	740				-	745			-		750		
4806	Lys	Asn	Trp	Arq	Pro	Gln	Leu	Leu	Val	Leu	Leu	Lys	Leu	Asp	Glu	Asp
4807	•		755	_				760				•	765	-		-
4809	Leu	His	Val	Lys	His	Pro	Arq	Leu	Leu	Thr	Phe	Ala	Ser	Gln	Leu	Lys
4810		770		-			775					780				-
4812	Ala	Gly	Lys	Gly	Xaa	Thr	Ile	Val	Glv	Ser	Val	Ile	Val	Gly	Asn	Phe
4813		•	•	•		790			•		795			•		800
4815	Leu	Glu	Asn	Tyr	Gly	Glu	Ala	Leu	Ala	Ala	Glu	Gln	Thr	Ile	Lys	His
4816				•	805					810					815	
4818	Leu	Met	Glu	Ala	Glu	Lys	Val	Lys	Gly	Phe	Cys	Gln	Leu	Val	Val	Ala
4819				820		-		-	825		_			830		
4821	Ala	Lys	Leu	Arg	Glu	Gly	Ile	Ser	His	Leu	Ile	Gln	Ser	Cys	Gly	Leu
4822		-	835	_		-		840					845	-	-	
4824	Gly	Gly	Met	Lys	His	Asn	Thr	Val	Val	Met	Gly	Trp	Pro	Asn	Gly	Trp
4825	-	850		•			855				-	860			-	•
4827	Arg	Gln	Ser	Glu	Asp	Ala	Arg	Ala	Trp	Lys	Thr	Phe	Ile	Gly	Thr	Val
4828					-	870	-		-	-	875			_		880
4830	Arg	Val	Thr	Thr	Ala	Ala	His	Leu	Ala	Leu	Leu	Val	Ala	Lys	Asn	Ile
4831	-				885					890					895	





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4906 ttgaattctg agtagaagta ttcttagttg gggctttgtg tgtggtgtga atcaaggtta 600 4908 ttgaaatgtg ttatttttca agttatcttt tgtattgcag tcaaaagtag ctagcgtaag 660

4910 aggaagattt tgcgaggttc ccccacttt ttttgttctt aaaaagaaca aa

4833 Ser Phe Phe Pro Ser Asn Val Glu Gln Phe Ser Glu Gly Asn Ile Asp 905 4836 Val Trp Trp Ile Val His Asp Gly Gly Met Leu Met Leu Leu Pro Phe 4837 915 920 925 4839 Leu Leu Lys Gln His Lys Val Trp Arg Lys Cys Ser Ile Arg Ile Phe 935 ·4842 Thr Val Ala Gln Leu Glu Asp Asn Ser Ile Gln Met Lys Lys Asp Leu 950 955 4845 Ala Thr Phe Leu Tyr His Leu Arg Ile Glu Ala Glu Val Glu Val Val 965 970 4848 Glu Met His Asp Ser Asp Ile Ser Ala Tyr Thr Tyr Glu Arg Thr Leu 985 980 When numbering the first amend acid on a line, begin the number directly under the first letter of the amend acid. 4851 Met Met Glu Gln Arg Ser Gln Met Leu Arg His Met Arg Leu Ser Lys 1005 995 1000 4854 Thr Glu Arg Asp Arg Glu Ala Gln Leu Val Lys Asp Arg Asn Ser Met 4855 1010 1015 1020 1045 1050 1055 4863 Ser Arg Gly Gln Lys Ala Lys Ser Met Glu Gly Phe Gln Asp Leu Leu 1060 1065 4866 Asn Met Arg Pro Asp Gln Ser Asn Val Arg Arg Met His Thr Ala Val 4867 1075 1080 4869 Lys Leu Asn Glu Val Ile Val Asn Lys Ser His Glu Ala Lys Leu Val 4870 1090 1095 1100 4872 Leu Leu Asn Met Pro Gly Pro Pro Arg Asn Pro Glu Gly Asp Glu Asn E--> 4873(105)1105 1110 1115 4875 Tyr Met Glu Phe Leu Glu Val Leu Thr Glu Gly Leu Glu Arg Val Leu 1125 1130 4878 Leu Val Arg Gly Gly Ser Glu Val Ile Thr Ile Tyr Ser 4879 1140 1145 4882 <210> SEQ ID NO: 17 4883 <211> LENGTH: 712 4884 <212> TYPE: DNA 4885 <213> ORGANISM: Homo sapiens 4887 <400> SEQUENCE: 17 4888 agacaggaat coggttctgc ccctgcatcc tcctctgctt cacccttctg tcagtagtgt 60 4892 catcaaaaac accgggtggc tttgcataca cetecececa gccagacetg tggggtatte 180
E--> 4894 acctgatach caacaggtgg cegggtgtac accttttage aatctgatec acgetatagt 240
4896 egeetgataa aggtttgeet gcacgcactt ggeceaacta gaaccegtgg gacacteace 300
4898 agataaagga ettacetega caggaaactg ggggetgagg ggagggagge tteatetget 360
4900 geeetgagac catggeactg ageetteage eeeggaceag aggggttage taggtagete 420
4902 tteattetga aggaaagaag teacacaaga ttggeattgt tttgtettt tgtttttgt 480
4904 ttttteet ettaaaaaat atatteacet attggtgatg cactttetag gacagtegge 540
4906 ttgaattetg agtagaagga teettaget attggtgatg cactttetag gacagtegge 540





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```
4913 <210> SEQ ID NO: 18
     4914 <211> LENGTH: 1014
     4915 <212> TYPE: DNA
     4916 <213> ORGANISM: mouse
     4918 <400> SEQUENCE: 18
     4919 tagccgccgc ctccagctcc tttgccagga cgagacctct gggaggcagg aatccactct 60
     4921 gcttcggcat cctctcgtgg ctctcctctt tctccttcct gtagtgtggg ggtattttcc 120
     4923 cgttatgcat gcgcatctct cccaccagac ccaagtggat tatcgacctc aaaaacatcg 180
     4925 ggtggctcag cacacacctc ctcccagcca gacctgtggg gtattcacct gatacacaac 240
     4927 aggtggctgg tgcacacctt tgcgcaatct gatccacgct cttatacgcc tgataagggt 300
     4929 gggcctgcat gctccgtcct cagctagaac cgtgggacac tcggcagata aaggactaac 360
     4931 tacctcatcc ggaccctggg ggttgagcag agggaggcgt caccagctgc tgtgagatca 420
     4933 tggcacggag cccacagccc tggaccaggg gagatagcta ggattctgaa agaaccaagt 480
                                                                                   ) den 10
E--> 4935 tatacaggat tagcatcgtt ttgttcttat tttgttttct cgaanattat ttttcagtta 540
     4937 ctggtggggc actttataaa acagctggct tgaattctat acacggattc ttaattgggc 600
     4939 ctttgtgggc tgtaaatcag ggtaattgag ggtttttggt tttttttccc cttctatttt 660
     4941 tgcaatcaga agtagctagt gtaggaggaa gagtttttgt gagcttttcc ttttttcttt 720
     4943 gtcaaaaagg aaaggggggg gaaaatgcat ccaccagaag ccaccaccaa gatgtcctca 780
     4945 gttcggttca tggtgacacc aactaagatt gatgacattc caggtttgtc agacaccagc 840
     4947 coggacotoa gototoggto tagttotoga gtaagattta gotocogaga aagtgtgoca 900
     4949 gaaacaagcc gtagtgagcc tatgagcgaa ctgtctgggg ctactacttc tctggcaact 960
     4951 gttgccctag atccttccag tgaccggact tctaatcccc aggatgttac ggag
     4954 <210> SEQ ID NO: 19
     4955 <211> LENGTH: 744
     4956 <212> TYPE: DNA
     4957 <213> ORGANISM: mouse
     4959 <400> SEQUENCE: 19
     4960 aagtagatgt ttcacctgaa ggaggagaga agcctttcac tgactcttgc aaggttttcc 60
    4962 catatgettt gaacttaage aacaatggaa accgteettt tgttttetga gttgacatag 120
    4964 tgccagtctt cattaaagag ggtagtttgt gaaataaagt gttccctgat ctttctcgtg 180
    4966 tgaagtaaaa ggacagatga tgagtaaggt tgagatgatg gaacccagag aagtggcaat 240
    4968 aaattaaagg aaacaagtgg gagacacagg gtggacagct cttgatgagc tcacgggctt 300
    4970 tagetttetg eegeetggag aaactgeeca gacagttgga gttetacagg ttaataacaa 360
    4972 taagctgggg tggagtgctt aagcctttta agagaatgat aaacagggcg gaaggcgtgt 420
    4974 cttcaagegt cccactccct tggggctatg gtcacgtggg ctcagtactt cccgattccc 480
                                                                                    7 stem/o
    4976 agccactgtc tccctaggct gtgctctgag tgtggaggga gagaggcagg gacgcacggg 540
E--> 4978 aaggaaattt aaacgctgaa agcaagggtc tgthtgtaag aacaatgccg cacttcactg 600
    4980 tgaccaaggt agaagaccca gaggaggggg cagctggccc cctctctcct gagcccagct 660
    4982 cagcagaagt aaaagcccgg attcaggatc cccaagaacc aggtaagtcc tgcgcttgta 720
    4984 gcgtcggggg acccacagac tagt
     5321 <210> SEQ ID NO: 46
    5322 <211> LENGTH: 315
    5323 <212> TYPE: DNA
                                             next page
    5324 <213> ORGANISM: Homo sapiens
    5326 <400> SEQUENCE: 46
    5327 gtgggggcag agaaacatgg aggaggagca cacctggggt gttcgtaatg atgaggactg 60
    5329 cagagactga tgctggcctc cctggcaggc cccacgcatg ggcaccttca tgggcgtgta 120
    5331 cctgccgtgc ctgcagaaca tctttggcgt catcctcttc ctgcggctca cctgggtggt 180
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5333 gggcattgca ggcatcatgg agtccttctg catggtgttc atctgctgct cctgtgtgag 240





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E--> 5335 tgacacccct cccctcacca ccccctgaca gctggggctt ggcagaggcc tggngggtgg 300 ) tem/O 5337 gaggtgggag gatgg 6892 <210> SEQ ID NO: 113 6893 <211> LENGTH: 361 6894 <212> TYPE: PRT 6895 <213> ORGANISM: Xenopus laevis 6897 <400> SEQUENCE: 113 6898 Arg His Glu Gly Thr Val Leu Leu Gly Asp Tyr Leu Asp Ser His Ala 5 1.0 6901 Glu Ser Gln Ala Ala Glu Gln Ala Leu Lys His Leu Met Glu Gln Glu 6902 20 25 6904 Lys Val Lys Gly Phe Cys Gln Val Val Val Ala Gln Lys Leu Lys Glu 35 40 6907 Gly Leu Ser His Leu Ile Gln Ser Cys Gly Leu Gly Met Arg His 55 6910 Asn Thr Val Ile Met Ser Trp Pro Ser Ser Trp Arg Gln Ser Asp Asp 6911 65 70 6913 Ser Arg Ala Trp Lys Ser Phe Ile Thr Thr Ile Arg Val Thr Thr Ala 8.5 90 6916 Ala Arg Gln Ala Leu Leu Val Ala Lys Asn Val Ser Phe Phe Pro Gly 100 105 6919 Ser Arg Glu Thr Leu Ala Glu Gly His Ile Asp Val Trp Trp Ile Val 120 125 6922 His Asp Gly Gly Met Leu Met Leu Pro Phe Leu Leu Lys Gln His 6923 130 135 140 6925 Lys Val Trp Arg Lys Cys Lys Met Arg Ile Phe Thr Val Ala Gln Met 150 155 6928 Glu Asp Asn Ser Ile Gln Met Lys Lys Asp Leu Ala Thr Phe Leu Tyr 170 165 6931 His Leu Arg Ile Ala Ala Asp Val Glu Val Glu Met His Asp Ser 6932 180 185 6934 Asp Ile Ser Ala Tyr Thr Tyr Glu Arg Thr Leu Met Met Glu Gln Arg 200 6935 195 6937 Ser Gln Met Leu Arg Gln Met Arg Leu Ser Lys Thr Asp Arg Glu Arg 215 6940 Glu Ala Gln Leu Val Lys Asp Arg Asn Ser Ile Leu Arg Leu Thr Ser 230 235 6943 Val Gly Ser Asp Asp Asp Glu Asp Thr Glu Ala Ala Pro Glu Arg Val 245 250 6946 His Met Thr Trp Thr Arg Asp Lys His His Ala Val Arg Val Ala Gln 260 265 6949 Ser Lys Pro Met Pro Ser Cys Gln Asp Leu Leu Asn Ile Arg Pro Asp 6950 275 280 6952 Gln Ser Asn Val Arg Arg Met His Thr Ala Val Lys Leu Asn Glu Val 6953 290 295 300 6955 Ile Val Asn Lys Ser His Asp Ala Lys Leu Val Leu Leu Asn Met Pro 310 315 6958 Gly Pro Pro Arg Asn Pro Gln Gly Asp Glu Asn Tyr Met Glu Phe Leu





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E--> 6961 Glu Val Leu Thr Glu Gly Leu Glu Arg Val Leu Val Val Arg Gly Gly

6962 340 345

6964 Gly Thr Glu Val Ile Thr Ile Tyr Ser

E--> 6965 355 360

FYI

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.





## VERIFICATION SUMMARY DATE: 05/08/2001 PATENT APPLICATION: US/09/835,976 TIME: 15:55:19

Input Set : A:\PTO.txt

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```
L:14 M:270 C: Current Application Number differs, Replaced Application Number
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:59 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:60 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:67 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:68 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:303 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:417 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:423 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:600 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L\!:\!650 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L\!:\!651 M\!:\!341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:762 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:763 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:910 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:911 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:981 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:1062 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:1176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:1239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:1240 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L\!:\!1371~M\!:\!341~W\!: (46) "n" or "Xaa" used, for SEQ ID#:5
L\!:\!1372 M\!:\!341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:1491 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:1492 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:1630 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:1729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:1819 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:1858 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:1859 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:1926 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:1927 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:2062 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:2063 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:2510 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L\!:\!2511 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2630 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L\!:\!2631~M\!:\!341~W\!: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2738 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2739 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:2895 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:2982 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:3063 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:3143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:3144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:3203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:3204 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
```





## VERIFICATION SUMMARY DATE: 05/08/2001 PATENT APPLICATION: US/09/835,976 TIME: 15:55:19

Input Set : A:\PTO.txt

Output Set: N:\CRF3\05082001\1835976.raw

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L:3343 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 L:3344 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:3524 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:3569 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:4858 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEO ID:16
M:332 Repeated in SeqNo=16
L:4890 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:17
M:340 Repeated in SeqNo=17
L:4935 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:18
L:4978 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:19
L:5335\ M:340\ E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:46
L:6680 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:111
L:6808 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:112
L:6961 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:6961 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:6965 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:113
L:6965 M:252 E: No. of Seq. differs, <211>LENGTH:Input:361 Found:362 SEQ:113
L:7159 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:131
```